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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**Inventor(s):** Michel Koopmans

**Patent No.:** 6,847,105 B2

**Issued:** January 25, 2005

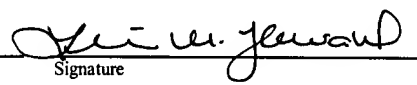
**For:** BUMPING TECHNOLOGY IN  
STACKED DIE CONFIGURATIONS

**Attorney Docket No.:** 2269-4882US

CERTIFICATE OF MAILING

I hereby certify that this correspondence along with any attachments referred to or identified as being attached or enclosed is being deposited with the United States Postal Service as First Class Mail on the date of deposit shown below with sufficient postage and in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

April 16, 2007  
Date

  
Signature

Leta M. Howard  
Name (Type/Print)

**REQUEST FOR CERTIFICATE OF CORRECTION OF PATENT  
OFFICE MISTAKES (37 C.F.R. § 1.322)**

Attn.: Certificate of Corrections Branch  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Certificate**  
**APR 23 2007**  
**of Correction**

Sir:

It is noted that several errors appear in this patent of a typographical nature. These errors are due to mistakes in printing on the part of the U.S. Patent and Trademark Office, and occurred through no fault of the Applicant. A certificate of correction in the form attached hereto is requested.

Please send the Certificate to:

Name: Krista Weber Powell  
Address: TraskBritt  
P.O. Box 2550  
Salt Lake City, Utah 84110

**APR 23 2007**

Attached hereto in duplicate is Form PTO/SB/44 with at least one copy being suitable for printing.

Respectfully submitted,



Krista Weber Powell  
Registration No. 47,867  
Attorney for Applicant(s)  
TRASKBRITT  
P.O. Box 2550  
Salt Lake City, Utah 84110-2550  
Telephone: 801-532-1922

Date: April 16, 2007  
KWP/csw

Enclosures: PTO/SB/44 in duplicate

Document in ProLaw

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UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

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INVENTOR(S) : Michel Koopmans

Page 1 of 11

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**On the title page, section ( 57 ):**  
**ABSTRACT, 11<sup>th</sup> line**

change "a bond pad on top semiconductor" to --a bond pad on the top semiconductor--

**In the drawings:**

In FIG. 2

insert reference numeral --74-- and associated lead line at top central portion of drawing

In FIG. 6

insert --(PRIOR ART)-- right below "Fig. 6"

In FIG. 7

insert --(PRIOR ART)-- right below "Fig. 7" and insert reference numeral --724-- and associated lead line at the bottom left portion between reference numerals "760" and "728"

In FIG. 8

insert --(PRIOR ART)-- right below "Fig. 8"

In FIG. 10

change reference numeral "976" to --974'--

In FIG. 11

insert reference numeral --1030-- and associated lead line at bottom left portion of drawing

In FIG. 14

insert reference numeral --930'"-- and associated lead line at bottom right portion of drawing

MAILING ADDRESS OF SENDER:

PATENT NO. 6,847,105 B2

Krista Weber Powell  
230 South 500 East, Suite 300  
Salt Lake City, Utah 84102 USA

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DATED : January 25, 2005  
INVENTOR(S) : Michel Koopmans

Page 2 of 11

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### In the specification:

COLUMN 1, LINES 49-51,	after "circuit board." delete the remainder of the paragraph (duplicate sentence): "A variation of the pin-in-recess PGA, wherein the loops of the J's are soldered to pads on the surface of the circuit board."
COLUMN 2, LINE 50,	change "chip on board" to --chip-on-board--
COLUMN 3, LINE 48,	change "packaged die" to --packaged dice--
COLUMN 3, LINE 50,	change "stacked die" to --stacked dice--
COLUMN 4, LINES 15-16,	change "corresponding redistribution" to --corresponding first redistribution--
COLUMN 4, LINE 20,	change "distance that bond" to --distance so that bond--
COLUMN 4, LINE 21,	change "above an" to --above the--
COLUMN 4, LINES 28-29,	change "bond pad on substrate." to --bond pad on the substrate.--
COLUMN 5, LINE 8,	change "that include" to --that includes--
COLUMN 5, LINE 31,	change "chip type" to --chip-type--
COLUMN 5, LINE 48,	change "additional semiconductor die" to --additional semiconductor dice--
COLUMN 6, LINE 40,	change "having bond pads 430" to --having first redistribution bond pads 430--
COLUMN 6, LINE 42,	change "to the bond" to --to the first redistribution bond--
COLUMN 6, LINE 50,	change "connected, bond" to --connected, first redistribution bond--

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Page 3 of 11

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**In the specification continued:**

COLUMN 7, LINE 15,	change "semiconductor die 20. (FIG. 2)." to --semiconductor die 20 (FIG. 2).--
COLUMN 7, LINE 24,	change "maybe" to --may be--
COLUMN 8, LINE 22,	change "At least one peripheral" to --At least one of the peripheral--
COLUMN 8, LINE 24,	change "least one edge of the peripheral edges" to --least one of the peripheral edges--
COLUMN 8, LINE 28,	change "maybe" to --may be--
COLUMN 9, LINE 16,	change "(e.g; solder," to --(e.g., solder,--
COLUMN 9, LINE 19,	change "semiconductoor die" to --semiconductor die--
COLUMN 9, LINE 23,	change "the second die 920"" to --the second semiconductor die 920"--
COLUMN 9, LINE 28,	change "962", 960"" to --966", 964"--
COLUMN 9, LINE 56,	change "conductor filled epoxy," to --conductor-filled epoxy,--
COLUMN 10, LINE 5,	change "of a bottom semiconductor" to --of the top semiconductor--
COLUMN 10, LINE 38,	change "peripheral edge 1064, 1066" to --peripheral edges 1064, 1066--
COLUMN 10, LINE 50,	change "maybe" to --may be--
COLUMN 10, LINE 57,	change "conductor filled epoxy," to --conductor-filled epoxy,--
COLUMN 10, LINE 63,	change "maybe" to --may be--

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Page 4 of 11

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**In the claims:**

CLAIM 12, COLUMN 12, LINE 32-33,	change "bond pad is electrically" to --bond pad of said at least one redistribution bond pad circuit is electrically--
CLAIM 24, COLUMN 13, LINE 34,	change "semiconductor die are all electrically" to --semiconductor die are electrically--

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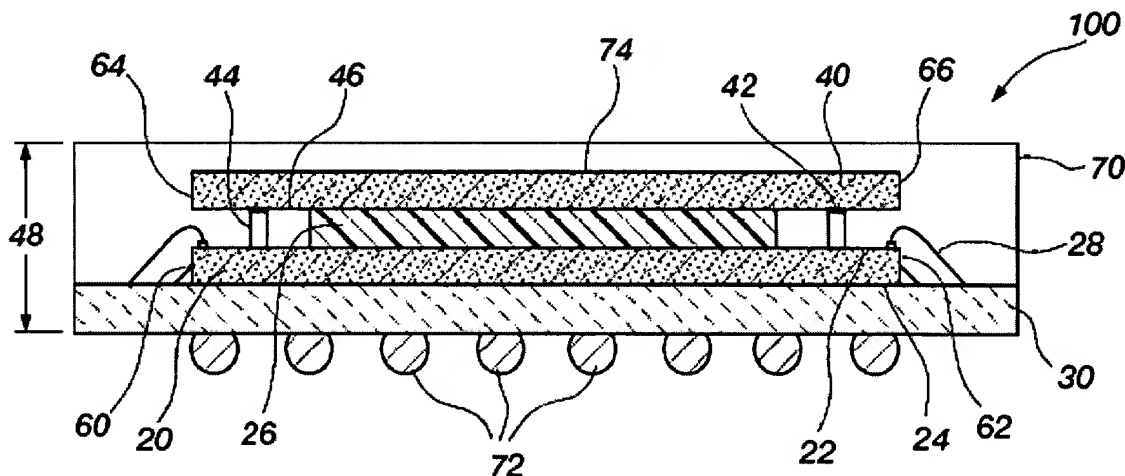
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Page 5 of 11

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**Replace FIG. 2 with the following:**



**Fig. 2**

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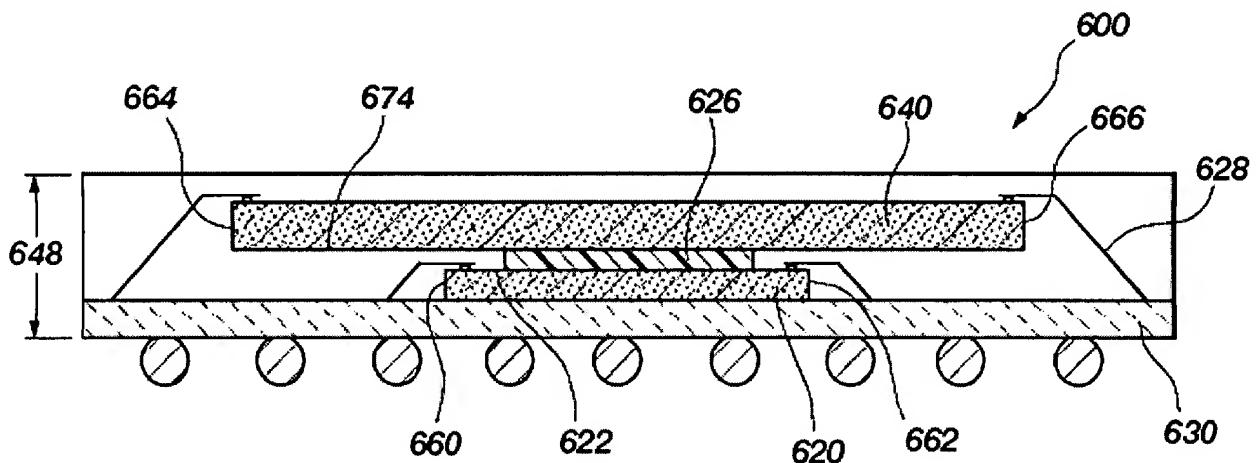
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Page 6 of 11

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**Replace FIG. 6 with the following:**



**Fig. 6  
(PRIOR ART)**

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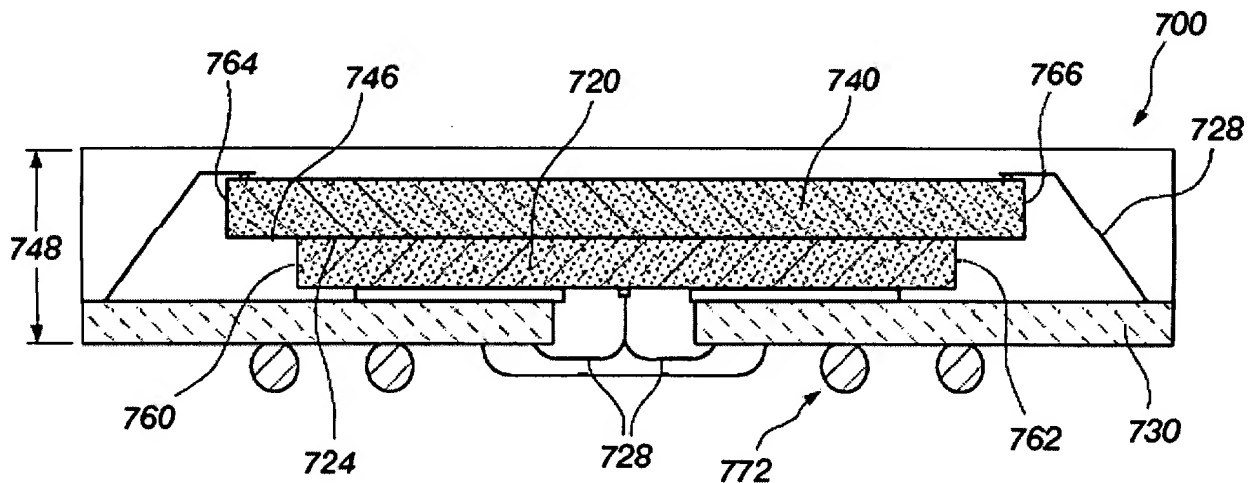
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**Replace FIG. 7 with the following:**



**Fig. 7**  
**(PRIOR ART)**

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Krista Weber Powell  
230 South 500 East, Suite 300  
Salt Lake City, Utah 84102 USA

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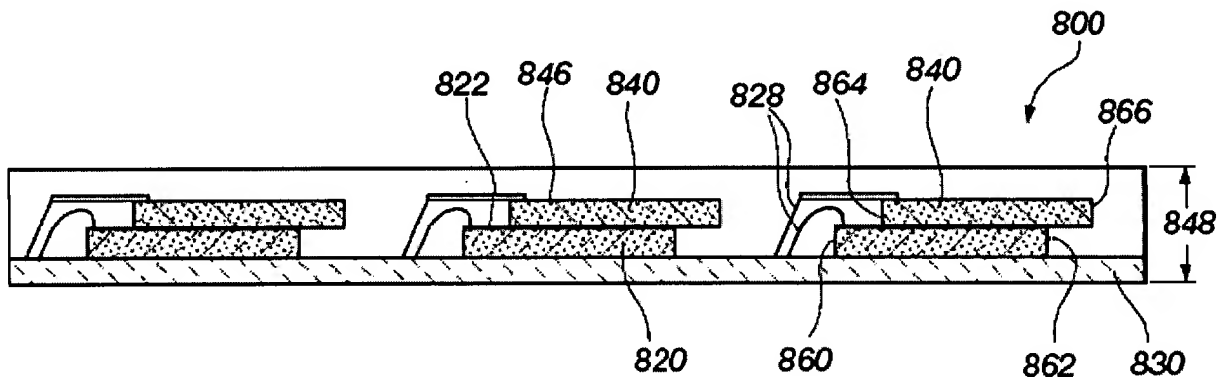
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**Replace FIG. 8 with the following:**



**Fig. 8**  
**(PRIOR ART)**

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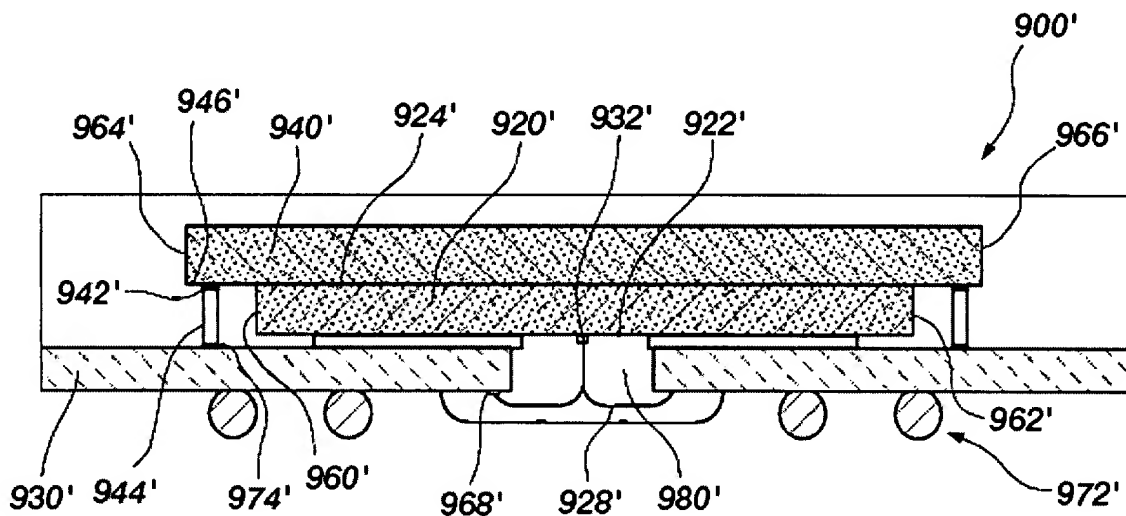
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Page 9 of 11

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**Replace FIG. 10 with the following:**



*Fig. 10*

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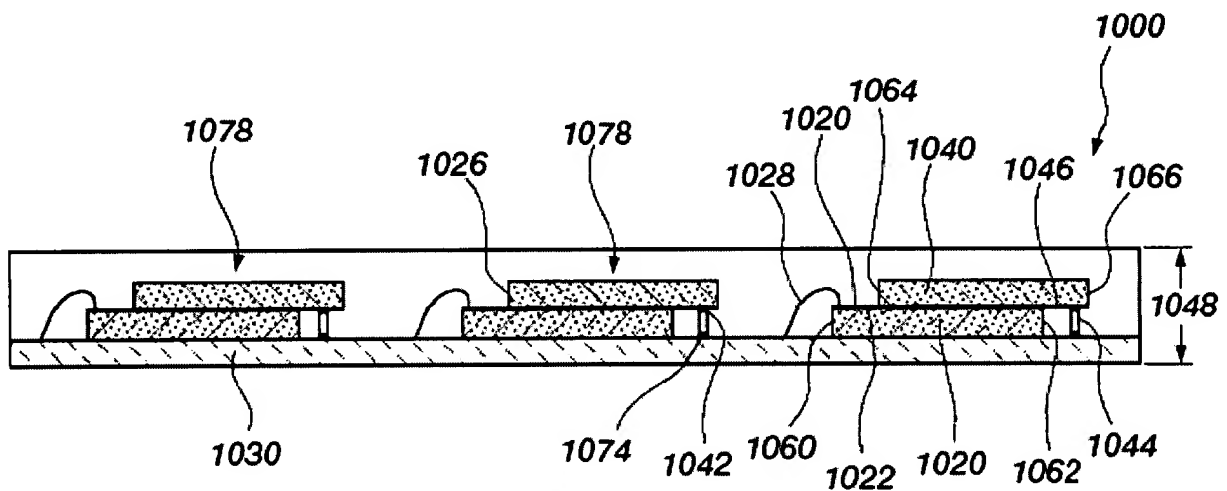
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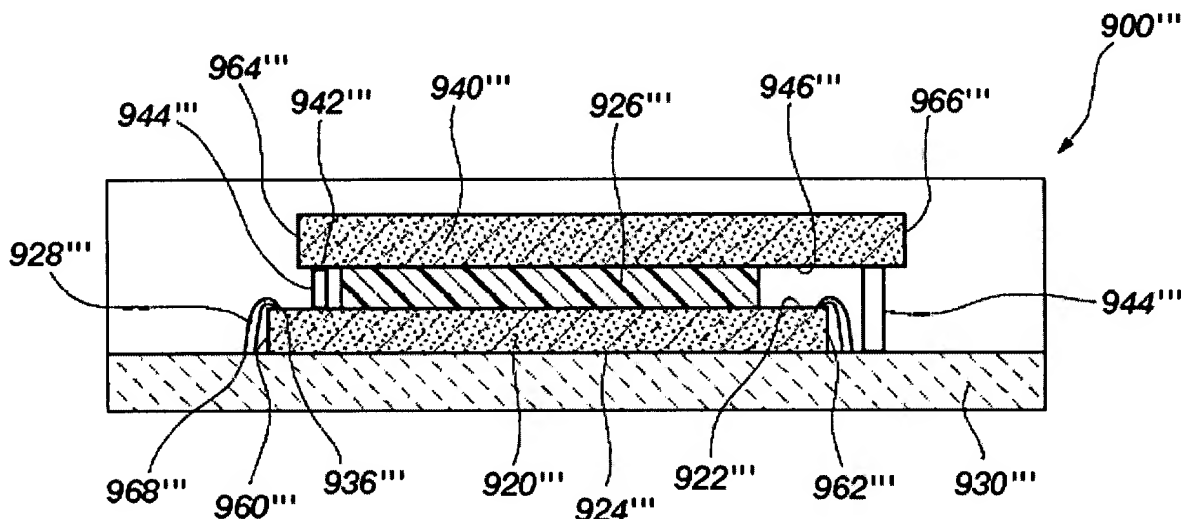
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**Fig. 14**

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COLUMN 3, LINE 50,	change "stacked die" to --stacked dice--
COLUMN 4, LINES 15-16,	change "corresponding redistribution" to --corresponding first redistribution--
COLUMN 4, LINE 20,	change "distance that bond" to --distance so that bond--
COLUMN 4, LINE 21,	change "above an" to --above the--
COLUMN 4, LINES 28-29,	change "bond pad on substrate." to --bond pad on the substrate.--
COLUMN 5, LINE 8,	change "that include" to --that includes--
COLUMN 5, LINE 31,	change "chip type" to --chip-type--
COLUMN 5, LINE 48,	change "additional semiconductor die" to --additional semiconductor dice--
COLUMN 6, LINE 40,	change "having bond pads 430" to --having first redistribution bond pads 430--
COLUMN 6, LINE 42,	change "to the bond" to --to the first redistribution bond--
COLUMN 6, LINE 50,	change "connected, bond" to --connected, first redistribution bond--

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PATENT NO. 6,847,105 B2

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**CERTIFICATE OF CORRECTION**

PATENT NO : 6,847,105 B2  
DATED : January 25, 2005  
INVENTOR(S) : Michel Koopmans

Page 3 of 11

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**In the specification continued:**

COLUMN 7, LINE 15,	change "semiconductor die 20. (FIG. 2)." to
	--semiconductor die 20 (FIG. 2).--
COLUMN 7, LINE 24,	change "maybe" to --may be--
COLUMN 8, LINE 22,	change "At least one peripheral" to --At least one of the
	peripheral--
COLUMN 8, LINE 24,	change "least one edge of the peripheral edges" to --least
	one of the peripheral edges--
COLUMN 8, LINE 28,	change "maybe" to --may be--
COLUMN 9, LINE 16,	change "(e.g; solder," to --(e.g., solder,--
COLUMN 9, LINE 19,	change "semiconductoor die" to --semiconductor die--
COLUMN 9, LINE 23,	change "the second die 920"" to --the second
	semiconductor die 920"--
COLUMN 9, LINE 28,	change "962", 960"" to --966", 964"--
COLUMN 9, LINE 56,	change "conductor filled epoxy," to --conductor-filled
	epoxy,--
COLUMN 10, LINE 5,	change "of a bottom semiconductor" to --of the top
	semiconductor--
COLUMN 10, LINE 38,	change "peripheral edge 1064, 1066" to --peripheral
	edges 1064, 1066--
COLUMN 10, LINE 50,	change "maybe" to --may be--
COLUMN 10, LINE 57,	change "conductor filled epoxy," to --conductor-filled
	epoxy,--
COLUMN 10, LINE 63,	change "maybe" to --may be--

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DATED : January 25, 2005  
INVENTOR(S) : Michel Koopmans

Page 4 of 11


It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**In the claims:**

CLAIM 12, COLUMN 12, LINE 32-33,	change "bond pad is electrically" to --bond pad of said at least one redistribution bond pad circuit is electrically--
CLAIM 24, COLUMN 13, LINE 34,	change "semiconductor die are all electrically" to --semiconductor die are electrically--

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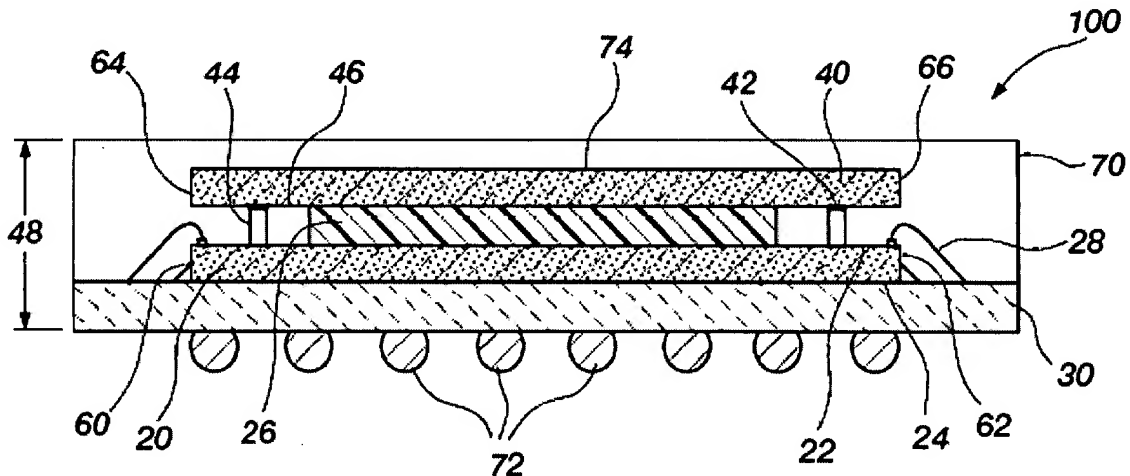
## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 6,847,105 B2  
DATED : January 25, 2005  
INVENTOR(S) : Michel Koopmans

Page 5 of 11

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**Replace FIG. 2 with the following:**



**Fig. 2**

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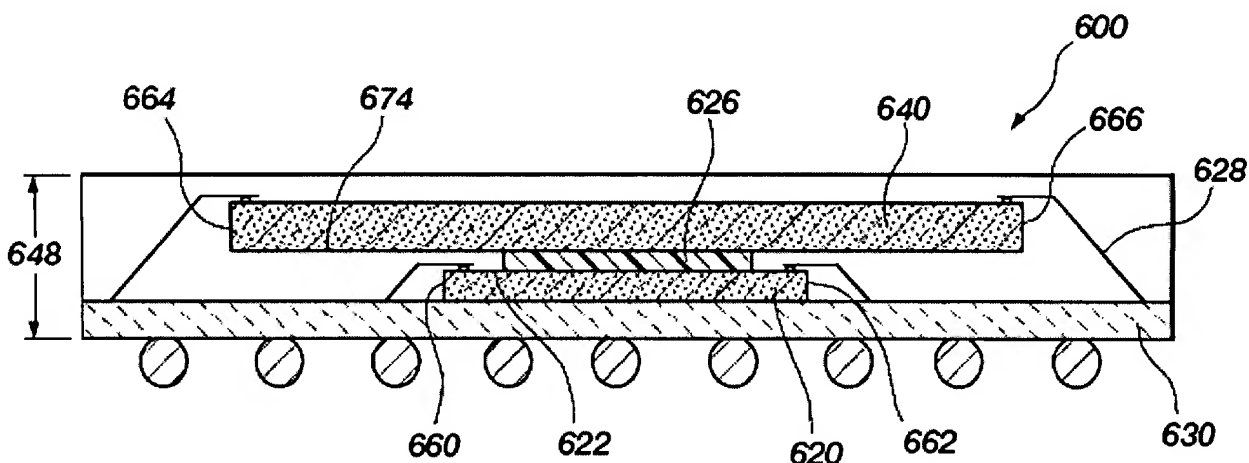
## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 6,847,105 B2  
DATED : January 25, 2005  
INVENTOR(S) : Michel Koopmans

Page 6 of 11

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**Replace FIG. 6 with the following:**



**Fig. 6**  
**(PRIOR ART)**

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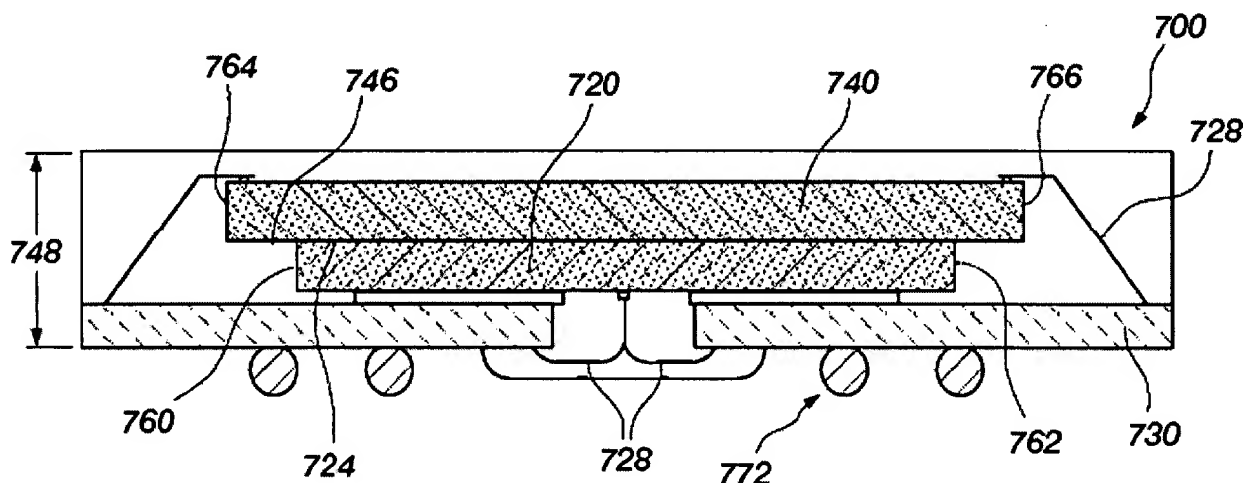
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DATED : January 25, 2005  
INVENTOR(S) : Michel Koopmans

Page 7 of 11

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**Replace FIG. 7 with the following:**



**Fig. 7**  
**(PRIOR ART)**

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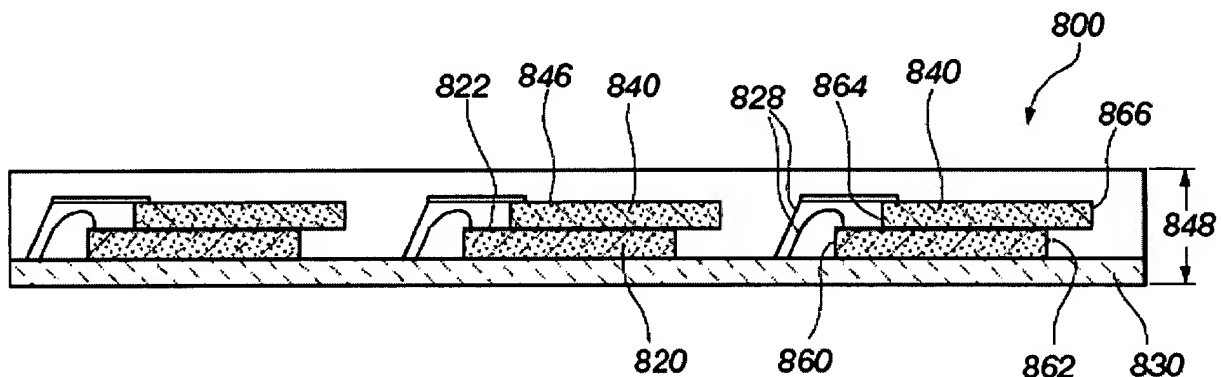
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INVENTOR(S) : Michel Koopmans

Page 8 of 11

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**Replace FIG. 8 with the following:**



**Fig. 8**  
**(PRIOR ART)**

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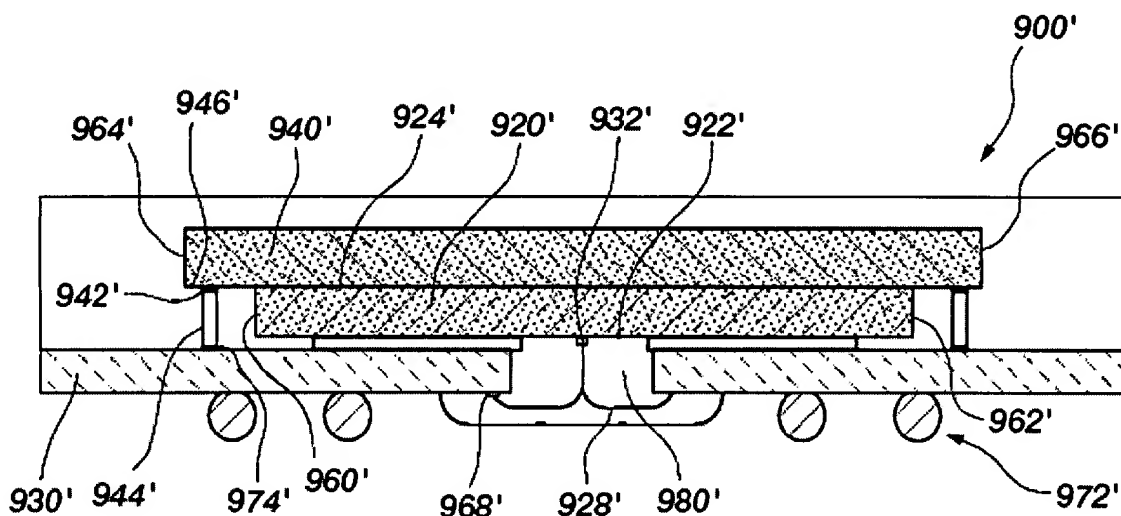
## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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DATED : January 25, 2005  
INVENTOR(S) : Michel Koopmans

Page 9 of 11

It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**Replace FIG. 10 with the following:**



**Fig. 10**

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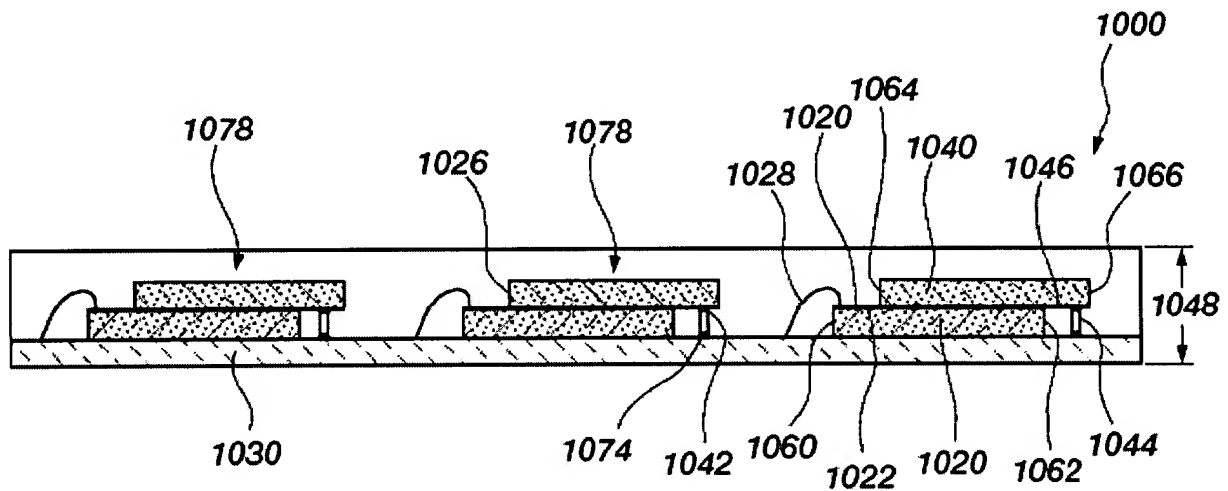
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It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**Replace FIG. 11 with the following:**



**Fig. 11**

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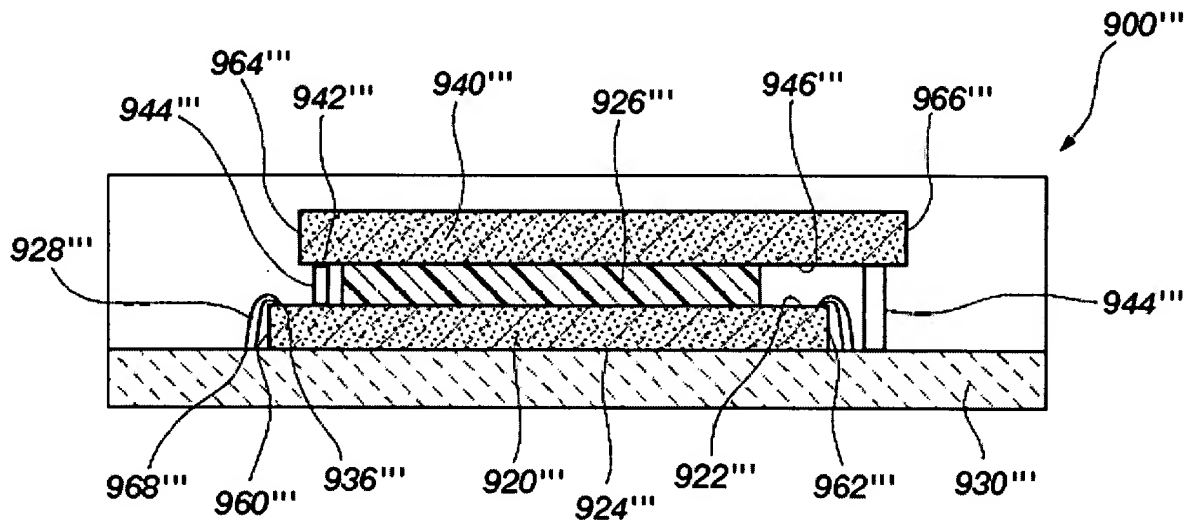
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INVENTOR(S) : Michel Koopmans

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It is certified that errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**Replace FIG. 14 with the following:**



**Fig. 14**

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